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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/868,351	10/02/2001	Julian Charles Carter	C1043/7033	7195

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EXAMINER
THOMPSON, CAMIE S

ART UNIT	PAPER NUMBER
1774	

DATE MAILED: 05/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Offic Action Summary	Application No.	Applicant(s)
	09/868,351	CARTER ET AL.
	Examiner	Art Unit
	Camie S Thompson	1774

-- Th MAILING DATE of this communication appears on the cover sheet with th correspondence address --

P riod f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21,23-43 and 45-58* is/are pending in the application.

4a) Of the above claim(s) *22 and 44* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21,23-43 and 45-58* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *5 and 6* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. Applicant's election of Group I, claims 1-21, 23-41 and 43-58 are acknowledged.

2. Examiner acknowledges cancelled claims 22 and 42.

Claim Objections

3. Claim 11 is objected to because of the following informalities: The term "first" is misspelled. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

5. Claims 1-21, 23-41, 43-58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Regarding claim1, the word "means" is preceded by the word(s) "for limiting the current flow through any conductive defect in said light-emissive layer" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since

no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

Regarding claim2, the word "means" is preceded by the word(s) "are incorporated into at least one of said first and second electrodes" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

Regarding claim10, the word "means" is preceded by the word(s) "for electrically isolating any conducting defect in the organic layer from an associated electrode" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

Regarding claim11, the word "means" is preceded by the word(s) "are incorporated into at least one said first and second electrodes" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in-
> (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
> (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

8. Claims 1-2 and 10-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Tang, U.S. Patent Number 55,482,896.

Tang discloses a light-emitting device comprising an organic light-emitting diode array. The organic light emitting diode array contains a plurality of light transmissive first electrode elements where each first electrode element is laterally spaced and electrically insulated from an adjacent first electrode element; an organic electroluminescent medium and a second electrode element (see column 1, lines 9-65). The organic electroluminescent medium consists of a hole injection and transporting zone and an electron injecting and transporting zone (see column 4, lines 18-32).

9. Claims 1-2 and 10-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Codama, U.S. Patent Number 6,091,078.

Codama discloses an organic electroluminescent device. The reference also discloses that the device comprises a plurality of organic electroluminescent elements having at least a first electrode, one or more organic layers and a second electrode, with the elements being able to be independently electrically operated to emit light as per instant claims 1-2 and 10-11 (see abstract).

10. Claims 1-8 and 10-21 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 08-008065.

The Japanese reference discloses a thin-film electroluminescent element wherein the light emissive layer comprising an organic layer is disposed between first and second electrodes for injection carriers into the light-emissive layer as per instant claims 1-2 and 10-11 (see Figures 1 and 2). The reference also discloses that the first electrode layer is adjacent to the surface of the light-emissive organic layer remote from the other of the first and second electrodes and the first electrode layer comprises a high resistance material such as gallium nitride and a ductile metal such as silver as per instant claims 3-5, 7-8, 12 and 21 (see paragraphs 17-19). The Japanese reference also discloses that the first electrode layer has a low work function as per instant claim 6 (see paragraph 24). Additionally, the reference discloses that at least one of first and second electrode is opaque an comprises a plurality of layers (see Figure 2) and a thin first electrode layer comprises a low work function adjacent to the surface of the light-emissive organic layer remote from the other first and second electrodes (see paragraph 25) as per instant claims 13, 15, 17 and 19. The reference also discloses that the thin first electrode layer comprises a high work function as per instant claims 14 and 16 (see paragraph 24). Paragraph 33 and 42 of the

reference discloses that the first electrode layer has a thickness greater than the light emissive layer and is in the range 0.5 to 1 micron as per instant claims 19 and 20.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 27-34, 36-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 08-008065.

The Japanese reference discloses a thin-film electroluminescent element wherein the light emissive layer comprising an organic layer is disposed between first and second electrodes for injection carriers into the light-emissive layer as per instant claim 27, 39 and 43 (see Figures 1 and 2). The reference also discloses that the first electrode layer is a high resistance layer wherein the first electrode layer is adjacent the surface of the light-emissive organic region remote from the other first and second electrodes. The reference also discloses that the high resistance material can be germanium, the low work function element can be lithium and the insulator material can be a nitride or LiF as per instant claims 27-32, 41, 45, 47-48, 56 and 58 (see pages 2-3). JP 08-008065 discloses that the conductor material can be silver as per instant claims 33-34 and 50-51 (see page 2). Page 3 of the reference also discloses that the work function is greater than 4.5 eV for one element in the first electrode layer and the thickness is in

the range of 0.5 to 1 microns as per instant claims 36-37, 40, 52 and 55 (see page 3). The reference also teaches that the first electrode layer comprises ITO (see paragraphs 32 and 33) as per instant claim 38. In paragraph 44 of the reference, LiF is disclosed as being in the first electrode layer as per instant claims 44 and 46. Paragraph 27 of the reference discloses that the thickness of the first electrode layer is less than 5 nm as per instant claims 53-54 and 57. The reference does not disclose that the second electrode is patterned as per instant claims 27 and 43. Patterned electrodes are known in the art to make display devices. Therefore, it would have been obvious to one of ordinary skill in the art to have the second electrode patterned in order to provide an electroluminescent display device provides a patterned light emission.

13. Claims 9, 23-26 and 35 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Camie S. Thompson whose telephone number is (703) 305-4488. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly, can be reached at (703) 308-0449. The fax phone numbers for the Group are (703) 872-9310 {before finals} and (703) 872-9311 {after finals}.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

DEBORAH JONES
SUPERVISORY PATENT EXAMINER